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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,003	06/13/2001	Kiyoshi Shigehiro	109767	3306

25944 7590 08/29/2003
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EXAMINER

BLACKWELL RUDASIL, GWENDOLYN A

ART UNIT PAPER NUMBER

1775

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/879,003

Applicant(s)

SHIGEHIRO ET AL.

Examiner

Gwendolyn A. Blackwell-Rudasill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Paten no. 6,407,763, Yamaguchi et al.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Yamaguchi et al disclose an image display medium located between a pair of substrates with plural types of particles groups contained therein. The particles are of different color and charging properties wherein the insulating particles are charged through frictional charging and the conductive particles are charged by injecting charge, (column 2, lines 35-50). The charging properties of the particles can be controlled by the material constituting the particles, the external and internal additives added to the particles and the layer structure and form of the particles, (column 5, lines 38-42). Fine powder can be added to either the white or black particles wherein

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the fine powder should be adhered to the surface of the particles either by impulse force or by heat, (columns 13-14, lines 61-5). Furthermore, the fine powder adhered to the surface of the particles can be silica and titanium oxide which are modified by reacting with a coupling agent such as a silane compound, a silane coupling agent, or a silicone oil, meeting the requirements of claims 1-6, (column 14, lines 41-64).

Claims 5 and 6 are product by process claim wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitations within claims 5 and 6 do not provide patentable distinction over the prior art of record due to Yamaguchi et al disclosing that the fine powder is adhered to the surface of the particles either by impulse force or by heat, (columns 13-14, lines 61-5).

Claim Rejections - 35 USC §§ 102/103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3 and 4-6 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over United States Patent no. 6,400,492, Morita et al.

Morita et al disclose a display liquid medium in which a first granular material having one or more hollows therein (hollow particles) and a second granular material (pigment particles) whose color is different from the color of the hollow particles. In addition, the surface of the pigment particles is treated with a coupling agent. The liquid medium is contained between a pair of substrates that face each other wherein at least one of the substrates is transparent, (columns 3-4, lines 65-21). The surface of the hollow particles are coated with one or more compounds using a coupling agent wherein the hollow particles are not limited to white but may be dyed, (column 6, lines 29-41). A coupling agent can be used on the pigment particles to reform the surface. Coupling agents that may be used can contain or not contain a nitrogen atom, with examples of the coupling agents in columns 8-10, lines 42-31. Coupling agents can be used on both hollow and pigment particles, (column 6, lines 29-67; column 8, lines 41-50). Because the display liquid medium is used in an electrophoretic device, the particles will have different charges to form an image in the display medium by electrophoresis depending on the charge applied and the charge of the particle meeting the requirements of claims 1-3 and 5-6, (column 17, lines 9-25).

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Claims 5 and 6 are product by process claim wherein the patentability of the product does not depend on its method of production. "If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *See MPEP 2113*. As such, the process limitations within claims 5 and 6 do not provide patentable distinction over the prior art of record due to Morita et al disclosing that the particles are mixed with the mother particles by high speed stirring with heat added if desired, (columns 10-11, lines 64-14).

In the alternative although it is not specifically disclosed which particle has the negative or positive charge, it would be within the skill of one in the art at the time of invention through routine experimentation to determine which particles will have which charge to ensure that the proper image is displayed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

United States Patent no. 4,980,257, disclose a developing toner comprised of particles with an outer shell layer.

United States Patent no. 6,405,007, disclose magnetic particles comprised of a particles containing surface layers wherein the particles are charged.

United States Patent no. 6,517,618, disclose an electrophoretic ink comprised of a plurality of particles with surface coatings.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (703) 305-9741. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gwendolyn A. Blackwell-Rudasill
Examiner
Art Unit 1775


GBT


J. McNeil 1775